

95/09



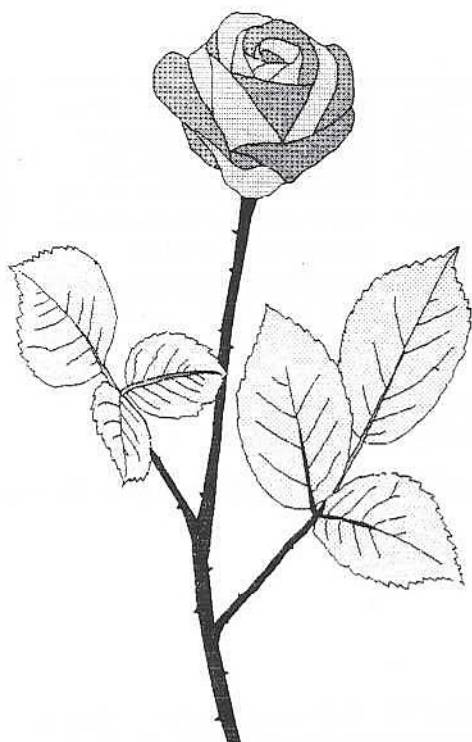
B.A.R.G. NEWS



SEPTEMBER 1995

VOL 18 NO 8.

NEWSLETTER OF THE BALLARAT AMATEUR RADIO GROUP INC.



IS SPRUNG
THE GRASS IS RISE
DO YOU KNOW
WHERE THE
HAMVENTION IS ?

WELL PLEASE PASS IT ON
WE DON'T WANT OUR VISITORS
TO GET LOST DO WE ?



BALLARAT AMATEUR RADIO GROUP INC.

OFFICE BEARERS - 1995 / 1996



			WORK	HOME
PRESIDENT	GORDON CORNELL	VK3FGC	391135	392427
VICE PRESIDENT	DOUG RAPER	VK3VBA	015-368922	323565
IMM.PAST PRESIDENT	BOB TERRILL	VK3BNC		395317
SECRETARY	GEOFF SMITH	VK3ADB	358601	332112
ASST.SECRETARY	MARY CURNOW	VK3FMC		301927
TREASURER	HARRY HEKKEMA	VK3KGL		357563
MEMBERSHIP SECRETARY	NORM D'ANGRI	VK3LBA		341613
NEWSLETTER EDITOR	NORM D'ANGRI	VK3LBA		341613
EDUCATION OFFICER	TOM GEORGE	VK3DMK	327234	
EXAMINATIONS OFFICER	CHARLIE STEWART	VK3DCS		317425
TECH. OFFICER	DICK ANTOSIEWICZ	VK3AEX		323273
TECH. OFFICER (DIGITAL)	TOM GEORGE	VK3DMK	327234	
MEMBERS' REP.	ALAN SNOWBALL	VK3NAS		355600
MEMBERS' REP.	CLIFF BILSTON	VK3CCB		361249
MEMBERS' REP.	REG CARTER	VK3CAZ		417585
OSL MANAGER	DOUG RAPER	VK3VBA	015-368922	323565
NET CO-ORDINATOR	CLIFF BILSTON	VK3CCB		361249
AWARDS MANAGER	RON WATKINS	VK3ZHH	667200	327141
LIBRARIAN / HISTORIAN	RICHARD VOSS	VK3JFL		326048
PUBLICITY OFFICER	DOUG RAPER	VK3VBA	015-368922	323565
PROPERTY OFFICER	JEFF PIGDON	VK3PAP	311211	327041
WICEN COMMITTEE	GORDON CORNELL	VK3FGC	391135	392427
	GEOFF SMITH	VK3ADB	358601	332112
	TOM GEORGE	VK3DMK	327234	
	DICK ANTOSIEWICZ	VK3AEX		323273
	IAN McDONALD	VK3AXH		
	DICK FORRESTER	VK3VU	337080	357663
	DAVID McCONNELL	VK3YNB		
	BEN ORCHARD	VK3TOP		203601
	RICHARD VOSS	VK3JFL		326048
	IAN ROBINSON	VK3FD	278175	358031
	TOM GEORGE	VK3DMK	327234	
	CLIFF BILSTON	VK3CCB		361249

LIFE MEMBERS:	MAURIE BATT (VK3XEX) SK	IAN McDONALD (VK3AXH)
	GEORGE SMALL (VK3DKJ) SK	JIM WRIGHT (VK3CFB)
	KEVIN HUGHES (VK3WN)	PHIL SEDDON (VK3AQM)
	STAN WIDGERY (VK3SE)	

CLUB STATION

VK3 BML

REPEATERS

VK3RBA (Voice)	146.750 MHz.	- Mt.Buninyong.
VK3RBS (Voice)	146.900 MHz.	- Smeaton Hill
VK 3RPC (Packet)	144.750 MHz.	- Mt.Warrenheip.
VK3RBU (Voice)	438.475 MHz.	- Mt.Hollowback.
VK3RMB (Beacon)	432.535 MHz.	- Mt.Buninyong.
VK3RBV (ATV)	426.250 MHz.	- Ballarat

ACTIVITIES

CLUB NET: Thursday nights at 8 pm. (8.30 pm during Daylight Saving). Freq: 3.610 MHz +/- QRM.
2 METRE SCRAMBLE: Sunday Nights at 7.50 pm. Freq: 146.425 to 146.600 MHz. Inc,
 Call back held on VK3RBA 146.750 MHz.

Logs **monthly** to D.Quirk - P.O. Box 78 - Newstead 3462 (or Meeting) to qualify.

MEETINGS: General Meeting : Last Friday of each month (except December) at 7.30 pm.
 Natter Night : 2nd Friday of each month.

Venue: Ballarat Adult & Further Education Centre (BRACE) 602 Urquhart St. (Cnr. Windemere St.)

FOX HUNTING: As arranged during the year.

PLEASE ADDRESS ALL CORRESPONDENCE to:

The Secretary - BARG Inc.
 Box 1261
 Mail Centre
 Ballarat 3354

DISCLAIMER

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The Minutes

MINUTES OF BARG MEETING HELD 25TH.AUGUST 1995



The meeting opened at 7.45pm. by President Gordon VK3FGC.

APOLOGIES were received from VK3's KGL, HGJ, ENT, DS, LPM, YNB, ADB, JEM, TDG, JFL, and PRJ.

MINUTES of the Previous meeting were confirmed as read. (BNC/CAZ)

TREASURERS REPORT: was presented by VK3FMC for Harry VK3KGL.

INCOME: Education	\$40.00
Membership	\$ 430.00
Newsletter Ads.	\$29.00
Total	\$495.00

The following accounts were presented for payment:

Printing, Exam Fees, Postage	
Repeater Exp. Petty Cash.	\$482.40
Superun Prints (H'Ven Print)	\$106.45
Newsletter Postage	\$48.55
Balance	\$199.45

(FMC/LBA)

PROPOSED BUDGET was presented by President Gordon VK3FGC and discussed.

CORRESPONDENCE:

Inwards - Newsletters from Capricornia R.C., Western & Northern R.C., Frankston & Mornington. Pen. R.C. (change of address & Hamfest date - Sept 17.)
WICEN News., Radio Action Mag - Aug '95., Phil Ridgway (appreciation of condolences re VK3IV),
Les Berryman VK4BYN re 'geriatric group',
Westlakes ARC re Certificate of Participation - Novice Contest 1995, WIA re Smeaton Hill.

Outwards: Letter of appreciation to Bartletts.

BUSINESS / CORRESPONDENCE: re WIA letter on Smeaton Hill - Has been referred to Dick VK3AEX.
Ron VK3ZHH to make enquiries re replacement of equipment and liaise with Dick.

REPORTS:

EDUCATION: Tom VK3DMK reported

14th. September - Next Exam -See Charlie VK3DCS ASAP to register.

Upgrade Course - If interested inform VK3's DMK/CAZ ASAP.

Club has now 3 H Calls - VK3HWK (Wendy) VK3HGJ (Gordon) VK3HAX (Darren)

JOTA: Cliff VK3CCB reported that BARG will be notified as soon as information is received.

TECHNICAL: Ian VK3AXH - has packet link equipment Ballarat-Horsham.

HAMVENTION: Tom VK3DMK reported on developments. Volunteers for transmissions for fox hunts are required -
Contact Ken VK3VCW.

PUBLICITY: Doug VK3VBA - List of new Office Bearers on last WIA broadcast.

WICEN: Gordon VK3FGC - More people wanted for training nights. - attend to remain accredited.

\$1300 from Govt. for training.

30th. September - 3 operators required for Orienteering. VK3CAZ a possible.

MEMBERSHIP: Norm VK3LBA - 31 full members had paid fees.

NEWSLETTER: Norm VK3LBA - more articles and reports please.

GENERAL BUSINESS: **PAGERS:** Reg VK3CAZ raised the problem of Pagers. It was carried that a letter be sent to the Minister of Communications with copies to the Local Member (Michael Ronaldson), SMA, and WIA on the basis a legal service is being interfered with by pagers, and querying whether paging transmissions conform with commercial type specifications and whether each paging system has attached to it a minimum of one cavity and one isolator
It was suggested that members borrow the club's cavities to assess the situation. (CCB/CAZ)

RAAF REUNION: A reunion being held of RAAF personnel who were stationed at the Ballarat camp 1946-1961.
Bud VK3AAP will liaise.

SLOW SCAN ON HF. Ian VK3AXH reported that Novices CANNOT OPERATE on the HF band.

AWARDS: Ron VK3ZHH to contact Kevin VK3WN re Awards available.

CLUB ROOMS: Gordon VK3FGC to investigate club rooms currently available at White Flat..

Meeting Closed at 8.41pm. Supper was enjoyed by all.

NEXT MEETING: Friday 29th. September.

73 de Mary VK3FMC

THE COMMITTEE would like to thank all of the members who have participated in the BARG education program, and who have given of their time and knowledge to assist in the tutoring of current and potential amateurs. Well done!



The President Reports

GORDON - VK3FGC



As we move into a new Season we cannot help but reflect upon the wonders of nature as the 'rebirth' of hitherto 'written off' plants and bulbs takes place and new lush young growth appears. It transforms our gardens, which have been rather tired, unkempt and mundane over the Winter months, into thriving things of beauty which almost compel you to get out and tend them to keep them at their peak for as long as possible. The influx of the new growth is also Nature's way of ensuring the 'repopulation' of our gardens and forests for many seasons to come.

As members of the Amateur Radio fraternity, and in particular as members of BARG, I feel that we must take Nature's example and endeavour to encourage an influx of 'young blood' into the ranks of our hobby to ensure that it can survive in this world of 'Virtual Reality' 'Internet' 'Super Highways' 'Cyberspace' and other 'yet to be dreamed up' technologies which would appear to be stifling the very spectrum on which we are becoming more and more dependent for our existence both at home & internationally. The price we pay of course, is that we become subservient to 'little black boxes' of sophisticated circuitry and the mistaken theory that power and speed are 'the way to go' and we become obsessed with the answer, rather than 'why is it so?'.

Our problem is to know what we can offer our youth to encourage them to participate with us in our hobby, and to convince them that although power and speed may be winners in this new technological world, there is a lot to be said for slow and easy wins the race - witness disaster areas where ham radio has been able to maintain comms. where all else has failed. There is a lot of value in carefully studying the theory and construction of small electronic packages and to understand the why and wherefore of their operation, and of course the reward is so much greater if it is homebrew. Add to this the fellowship and willingness within the ranks of Amateur Radio to help each other, and to assist the community and provide a service, albeit within the constraints of non-profit regulations. This hobby of ours *has* got a future, but only if we are successful in attracting our young people into become involved.

It was pleasing to note at the last meeting that effort is being made by BARG to seek the involvement of some of the local schools to achieve this end, and of course JOTA presents another opportunity to plant the seeds of Amateur Radio in the minds of our young'uns. All Amateurs should become involved in these types of projects, and make every effort to achieve favourable community awareness of our hobby. The contribution you are making to the Hamvention will be a great start.

73 de Gordon VK3FGC

HOME BREWING (AS IN RIGS) COMPETITION

DONT FORGET TO SUBMIT
YOUR HOME BREWED PIECE OF GEAR
AT THE

BARG HAMVENTION '95

GOOD PRIZES FOR GOOD WORK - Could be yours!



Ladies ~ If you are willing to assist with the preparation and serving of take-away food at the Hamvention - Sunday 29th Oct. please ring Betty Terrill ☎39 5317 ASAP or give your name to a committee member. Thanks in anticipation.

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INTER#*§#@ FERENCE

INTERFERENCE FROM PAGING TRANSMITTERS - VK3AXH

There appears to be an ever increasing problem from paging transmitters in the 2 metre amateur band.

There can be several reasons for this which include radiated intermodulation products from the paging transmitters themselves, and secondly intermodulation occurring in the front end of receivers caused by the inability of the receiver to handle the presence of strong adjacent channel transmitted signals. In addition to the above it is also possible that unwanted modulation products are being generated in antenna hardware, masts and even through overload and reradiation from masthead amplifiers.

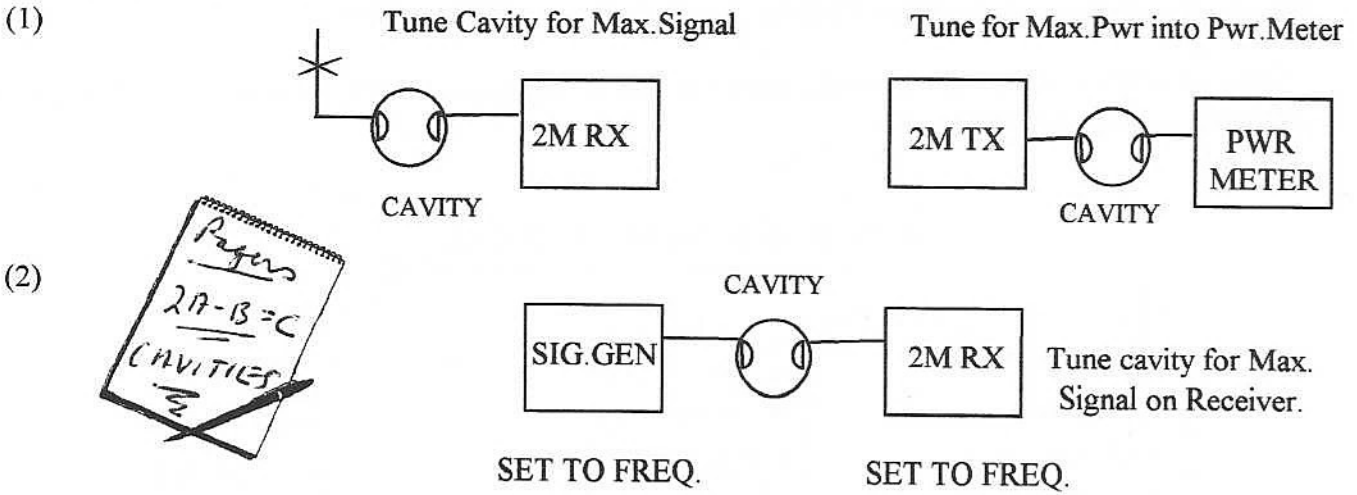
The first step is to identify whether the problem is occurring in your own receiver, or in fact whether the signal is radiated and arriving at your receiver on frequency.

Items of equipment that will assist your investigation include a Cavity (the club has two cavities) and a 1dB stepped attenuator. If you don't have one of these then now would be a good opportunity to make one. There are plenty of designs in radio publications that are simple to reproduce.

TESTING METHOD

1. Tune up the cavity on the frequency to be tested. This can be achieved by connecting the cavity in line with the receiver and using another amateur station to transmit whilst you are adjusting the cavity to receive the strongest signal as indicated on your field strength meter or LED display. When this has been done you can now transmit into a power meter and finally tweak the cavity to obtain maximum power output. For those of us fortunate enough to have a signal generator, simply connect as per the diagram below and tune the cavity for maximum signal strength by the receiver.

EQUIPMENT SET UP



The effect of the cavity is to reduce the window of frequencies available to the receiver. Provided the adjacent unwanted signals are far enough away the cavity will attenuate them sufficiently to prevent them from either entering your receiver in the first instance, or reduce the level sufficiently to prevent intermodulation occurring in the front end of the receiver.

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INTERFERENCE - Contd.



TESTING METHOD

(2) Connect the stepped attenuator in the 0dB position in the antenna lead. When the interference is heard, increase the attenuator in 1dB steps. You should notice the level of interference reduces linearly as the attenuation increases. If this is not the case then the intermodulation is occurring in the receiver. To explain it another way :- If when increasing the attenuation the interference decreases progressively, and with an additional 1dB increase step goes from a reasonable signal or even a noisy signal, to nothing, this means the decreasing rate is non-linear, which means the problem is in the front end of your receiver.

If the problem is in your receiver there is little you can do. A cavity is not the answer unless you wish to operate on a single frequency. A lower or directional antenna may also assist by reducing the level of the signal in the first place.

If the problem is radiated then there are two possibilities.

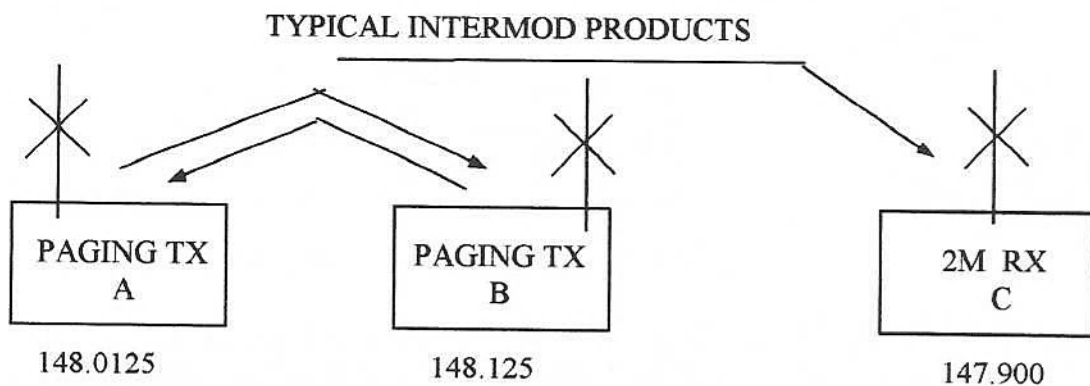
1. Signals may be mixing in the transmitter output stages producing signals as shown in the diagram below. If so the inclusion of a cavity and an isolator will stop this from occurring at the offending transmitter/s.

2. As mentioned above, signals may also mix in hardware such as masts or even in masthead amplifiers external to both the transmitters and receivers concerned.

When allocating frequencies, the Spectrum Management Agency does not take into account interference to mobile or portable receivers, as these move around and often come into the presence of strong signals, and therefore unable to offer protection in these circumstances. In addition, amateur radio equipment is not required to meet any set technical standards such as those applied to the commercial world. Generally speaking the technical standard of amateur radio equipment is of a high standard, but not always the same as ministerial standards set down for commercial equipment.

In the event the signals are radiated intermods, and this needs to be proven conclusively, then an approach can be made to the owners of the offending transmitter/s or the SMA, or both.

With a bit of effort I am sure a positive outcome can be achieved with the assistance of our club and a satisfactory solution reached for all.



Mixing occurs in output stages of transmitters.

Good Luck - 73 de Ian VK3AXH.

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From the Shack Bench with Reg - VK3CAZ



A HANDY "ON" INDICATOR

Have you ever been "cheesed off" because you have found your battery flat on a piece of test equipment and it's all your fault. (Forgot to switch it off didn't you?) Worse still, because it's test equipment you can't even blame the XYL, unless she distracted you at the crucial moment, and you haven't a spare battery and your boss is due any minute (after driving 40k) to pick up his little radio, that you promised would be a 'piece of cake' to repair, so he can listen to his footy team play in the Grand Final this arvo! Kind of like Murphy's Law at work isn't it!

Well you would be a sure candidate to build this little project - The ON indicator.

This unit emits a series of "bleeps" lasting 10 seconds, about every two minutes. The power consumption is negligible so it can be wired into a piece of equipment and act as an audible warning of the device being switched "on".

I priced the components, and excluding the piece of PCB, the cost came to \$6.00 which compares favourably with the cost of a 9V transistor battery. It operates between 3 and 15 volts and is quite loud enough to attract attention.

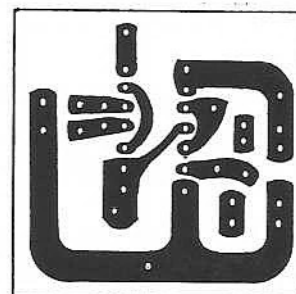
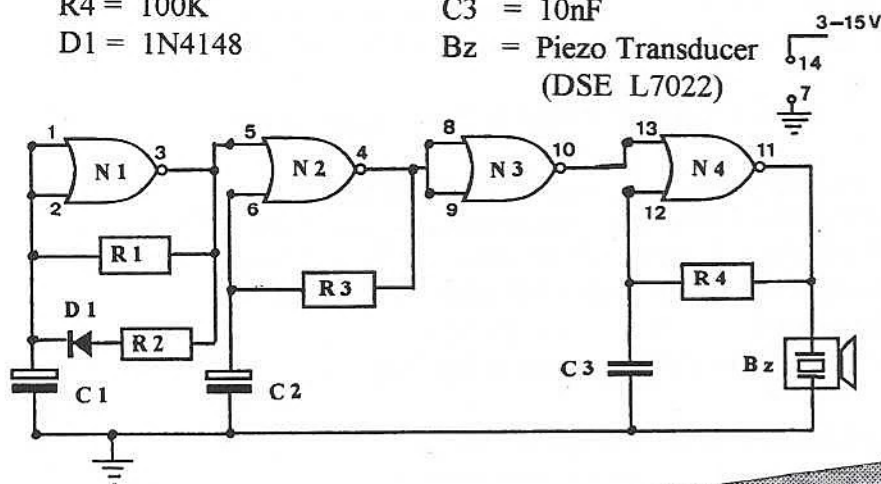
The PCB layout is shown, but please note that a wire link between the pad at pins 8 & 9 and the small pad to the side of pin 7 is needed.

The measured drain on a 9V battery is 150 micro-amps quiescent and 0.55 mA when actually sounding, so you can see that its loading on the battery is minimal.

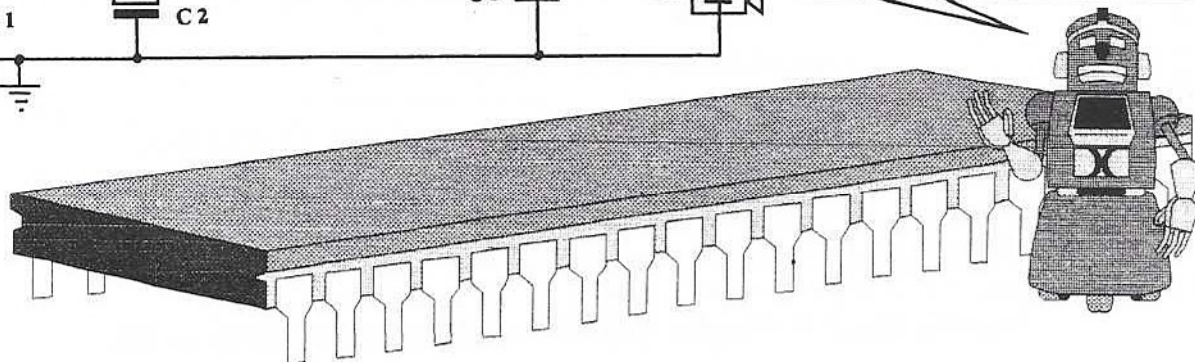
73 de Reg VK3CAZ

R1 = 10M Ω
R2 = 330K
R3 = 47K
R4 = 100K
D1 = 1N4148

N1 to N4 = 4093
C1 = 100 μ F 16V
C2 = 22 μ F 25V
C3 = 10nF
Bz = Piezo Transducer
(DSE L7022)



BOOKED YOUR HAMVENTION
TRESTLE YET? YOU BETTER
HURRY - SEE TOM or CLIFF



Meeting Procedure Explained



After the last meeting it has been brought to my attention that my comments about 'contentious motions' were not fully understood. Let me explain. As many will remember, we often have issues which promote some very "heated" discussions and this leads to a lot of time being wasted while members have two or three or more "goes" at the topic, often repeating the same comments.

Under normal Meeting Procedures, a motion is moved, with the mover making his reasons known for the motion, then the motion is "seconded" and the seconder may or may not make any comments. Usually the next speaker should speak against the motion if it is so desired. (If no one speaks against the motion the chairman assumes that every one is in favour of the motion & the motion is put.)

If there is a speaker against the motion, speakers alternate, one for, one against, until any members have had their say, after which the proposer can speak again and this closes the debate. If there are any questions of clarification, these may be asked before the motion is put.

Therefore, apart from the mover, members may only speak **once** on any motion.

A hint for members is "don't leap into the argument if you have strong feelings on the subject, but wait till you have sorted out your thoughts".

I hope that this short explanation will reduce "hot" arguments and allow the meetings to flow freely.

Gordon VK3FGC

WANTED



10 position - Single pole - 4 Wafer Rotary Switch or similar.
2 X 100pf. Variable Capacitors with shafts at BOTH ENDS.

XTALS. - Small Type :-

2 MHz. 4 MHz. 6 MHz. 7 MHz. 11 MHz. 15 MHz. 18 MHz. 23 MHz.
24 MHz. 25 MHz.

Doug VK3KAY

FOR SALE

OSKERBLOCK SWR Power Meter Model 435. - 1 Watt /125 Watts. 70cm & 63cm. — \$90

MFJ VHF 144 - 220 MHz FWR Model MFJ/812B Power & Watt Meter. — \$30

Frank VK3ACL - (Contact thru Norm VK3LBA).

YAESU FT200 - HF TRANSCEIVER in Very Good condition - With Handbook - \$220 ono.

PHILIPS 747 UHF - 70cm 6 channel fitted with Xtals.- VK3RBU VK3RMM

Simplex 439.000 Works well - \$80 ono.

AWA 25M - 2M 6 channel. Xtals fitted for Ballarat Repeater VK3RBA - \$40.

Contact Charlie VK3DCS on (053) 317425

AT THE SEPTEMBER MEETING - 29TH. SEPTEMBER.
BE PREPARED TO DISCUSS -

1. Loan of gear to display in Hamvention Display.
2. Volunteers will be required to staff various Hamvention facilities and activities.
3. Helpers required to act as Foxs for Fox Hunting on the Saturday and Sunday.

PLEASE HELP TO MAKE THIS OUR BEST HAMVENTION EVER.

FIND A WORD CLUES HIDDEN TECHNOLOGY

ENGLISH AS SHE IS SPOKE

I take it you already know
of tough and bough and cough and dough,
others may stumble but not you,
on hiccough, thorough, laugh and through.
Well done! And now you wish perhaps
to know of less familiar traps.

Beware of heard, a dreadful word,
that looks like beard, and sounds like bird,
and dead, it's said like bed not bead,
for goodness sake's, don't call it deed!
Watch out for meat and great and threat
(they rhyme with suite and straight and debt)

A moth is not a moth in mother,
nor both in bother, broth or brother,
and here is not a match for there,
nor dear and fear for bear and pear,
and then there's rose and close and lose.
Just look them up - and goose and choose,
and cork and work and card and ward,
and font and front and word and sword,
and do and go and thwart and cart.

Come, come, I've hardly made a start,
a dreadful language? Man alive!
I'd mastered it when I was five.

Nic G7GOC@GB7CYM.

Throw a switch and complete the _____

It receives from one medium -
delivers on another _____

A ROM device that can be
programmed & erased _____

Writes on the screen _____

Full scan - plus a little bit _____

An optimum antenna will be _____

Transfer from up there to down here _____

One of many in orbit _____

A change from this to that is a _____

One of many effects embracing
sound/distance/frequency _____

A path from down here to up there _____

Can let the smoke out of a power supply _____

Reciprocal of the shortest element (in '')
in a data encoding system is a _____

A 'plug in' electronic package _____

Peak _____ Power

Its on - 29th October _____

A club project for packet _____

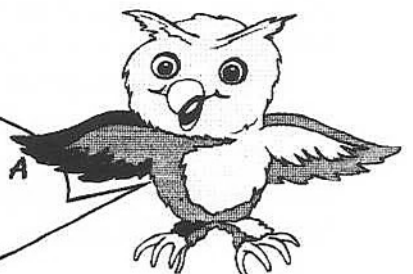
Brings around the beam _____

Overtone of a fundamental tone _____

e.g. Windows '95. _____

E	N	V	E	L	O	P	E	A	D	Y	R	S	S	H	O	P	S
L	E	L	O	Z	Z	X	R	O	T	A	T	O	R	W	D	U	C
K	B	X	N	O	I	T	N	E	V	M	A	H	H	N	H	R	Z
N	A	O	J	M	I	T	E	F	K	G	Q	T	R	A	F	U	F
O	O	V	E	R	S	C	A	N	M	Z	R	E	R	X	E	R	D
I	M	E	P	A	F	U	G	F	O	A	S	M	M	L	Q	N	Z
S	O	R	C	F	X	F	S	M	N	O	O	E	Z	M	N	Y	J
R	R	L	N	C	E	Z	O	S	N	N	D	S	K	A	X	W	H
E	P	O	A	I	U	D	D	A	I	O	A	N	Z	N	Z	T	F
V	E	A	B	M	U	U	N	C	W	T	X	E	T	E	L	E	T
N	F	D	L	L	C	T	K	N	E	K	J	X	Q	X	U	V	N
O	T	I	E	E	V	T	L	L	V	N	T	I	E	Q	R	D	O
C	M	S	R	K	M	O	L	R	R	I	P	X	L	G	K	D	J
X	W	O	Q	G	A	I	A	G	U	L	F	B	H	C	F	E	T
A	T	R	D	D	T	D	A	C	Y	P	O	H	D	U	A	B	A
E	Z	S	E	E	Z	Z	R	V	O	U	C	U	Q	H	C	T	E
V	O	H	T	J	M	I	K	E	R	A	W	T	F	O	S	Z	S
C	S	X	M	N	C	Z	W	X	N	D	O	P	P	L	E	R	O

ANSWERS ON A
LATER PAGE.



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ATV - The Bitznpieces



BEN VKTOP continues his description of VK3RBV

Well, here we go again with a very brief technical description of the ATV repeater. This time we look at the electronics and programming of the Teletext Generator.

Firstly to the name. While it may not be the correct name for it, the 2 main chips are out of Teletext receiver kit that DSE sells, and so it becomes, in my mind, a Teletext Generator.

There are 3 main chips involved; a SAA5020 - which is the timing and controller, a SAA5050 which is the character generator and video matrix generator, and the EPROM which has the pages of displays programmed into it by the user. Only three other chips are needed, a 74LS04 hex inverter which is the 6 mHZ oscillator, a 74LS393 which does some address decoding, and a TEA2000 which takes the video matrix and generates the required video standard. Just a quick point to be noted here, this is a stand alone device that you can use anywhere you want to generate simple static graphics or text, and can't afford a computer. The generated graphics are about CGA resolution.

Basically the 6 mHZ clock is divided into various clock rates by the 5020. These new frequencies feed to the 5050 at the same time the 74LS393 is being clocked by the 5020. The EPROM is then stepped through its page address range while the data is read out from each location by the 5050. The data is used as either a character, colour or attribute.

The result is fed to the TEA2000 as RGB and sync.. The TEA then combines all this and adds colour burst from its own crystal. The end result is a composite video signal with all the right sync, burst and video information. The TEA is quite a complex chip to get going correctly, but fun to play with.

That's the very basic electronics, the programming side was a lot of fun to sort out - an example of this is reflected in the fact that the EPROM has been written and erased over 152 times and its still not right Hi Hi !

Basically what happens is that the 40 possible character positions across the screen are stored in 64 bytes of memory, then there is a gap of 24 bytes, then the next 40 positions start, and so on for a total of 24 lines down the screen. The fun starts when you realise that it all must be programmed in Hex, then to keep you on your toes - if you assign an attribute to a character i.e. flash, depending on your current mode, that byte doesn't take up a space on the screen, but it still takes a valid space in your 64 bytes (i.e. you can't always get the full 40 characters across the screen even though there is no spaces in between them in the memory) also some modes are cancelled when you start a new line, and some are not. Depending on the mode, colours may or may not take up a space. When the command 'double height' is invoked you can't use the entire line beside it, unless you turn the command off - which takes up a character space.

The programming has taken many many more hours than the basic teletext hardware did to get going, and while the basic EPROM for now has been decided, I'll keep fiddling with it to get some 'fancier' graphics going.

But it is a cheap colour bar generator - which was its main function. The 3 main chips only cost about \$50.00 which is cheap compared to the \$200.00 for the colour bar kit. Of course the main disadvantage is that it is not a full screen (i.e. no overscan) - but Stan and I felt that this was a small price to pay, especially when weighed up with the fact that other pages of info can be displayed. Exactly what is on the pages I am not telling, you'll just have to tune in to find out !!

In the future there are two things on the teletext generator that I would like to fiddle with :

1. It has the capability to overlay its graphics over incoming video.
2. Put a RAM chip in place of the EPROM thus allowing two more possibilities

(a) Easier updating. (b) Moving graphics / text.

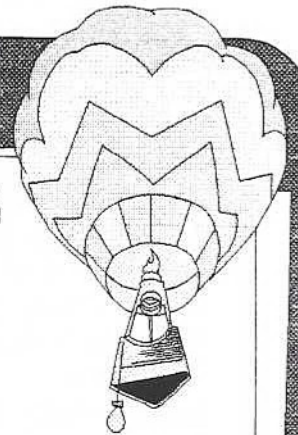
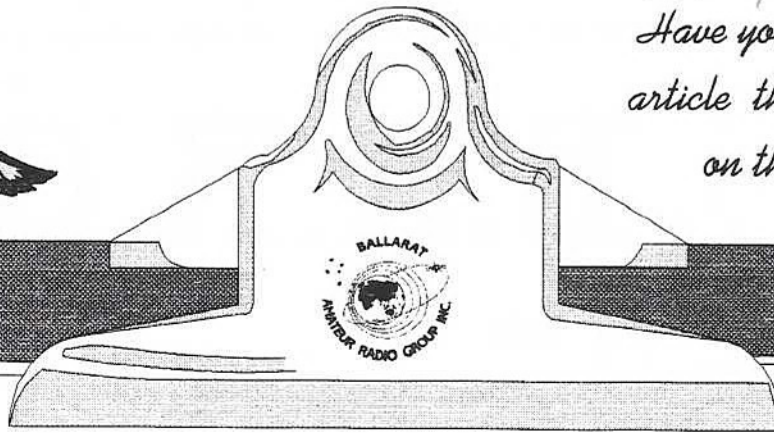
Stan has already set the latter challenge - he wants to see a moving line of text across the bottom of the screen (a-la SBS weather / CD info) But one thing at a time.

'Til next time - stay tuned 73 de Ben VK3TOP



95/09

Have you got a small
article that could feature
on the Clip Board?



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION KENNEDY SPACE CENTER

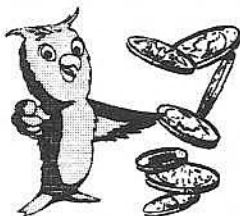
LNOTICE TO EDITORS/NEWS DIRECTORS: KSC TO SUPPORT TEST OF WORLD'S LARGEST HELIUM BALLOON

A leak check test of the world's largest helium balloon will be performed on a cost-reimbursable basis in the Vehicle Assembly Building at Kennedy Space Center on Sept. 16-17. The balloon's pilot, Capt. Henk Brink of The Netherlands, hopes to complete the first non-stop flight around the world in the balloon, and requested NASA's help in preparing for his history-making trip. The VAB is the only building believed to be large enough to accommodate an indoor leak check on a balloon that is 200 feet (61meters) tall when fully inflated.

Capt. Brink and his wife Evelien, who is the only woman to have crossed the Atlantic in a balloon, will answer questions with the news media during a photo/video opportunity inside the VAB at 12:30 p.m. on Saturday, Sept. 16. Testing of the helium balloon will be under way at this time. NASA Test Director Pete Nickolenko and Joe Porta, lead for Handling and Umbilicals in the Mechanical Ground Support Equipment Division of the Mechanical Engineering Directorate, will answer questions about NASA's support for the project.

The balloon is to arrive at the space center on Sept. 12, after being flown into Miami from The Netherlands and offloaded onto a truck for transport. Henk and a support team will be on hand to conduct the inflation and leak check of the balloon, scheduled to begin Sept. 15 and conclude Sept. 17. For the purposes of the leak check test, the balloon will only be partially inflated to assure the proper clearances between the balloon and the VAB transfer aisle.

----- End of message #70269 to NASA from N5IST -----



**BARG FEES
ARE NOW DUE & PAYABLE
BY
OCTOBER 31ST**

ANSWERS to FIND A WORD

UPLINK	CIRCUIT
OVERLOAD	TRANSDUCER
BAUD	EPROM
MODULE	TELETEXT
ENVELOPE	OVERSCAN
HAMVENTION	RESONANT
MODEM	DOWNLOAD
ROTATOR	SATELLITE
HARMONIC	CONVERSION
SOFTWARE	DOPPLER

PRIMARY SCHOOL STUDENT - YOUNGEST VK AMATEUR

Australia's youngest person to qualify for an Amateur licence is now an active Novice operator.

At the age of 8 (EIGHT) Ved Kamat of the Sydney suburb of Wollstonecraft is the youngest ever in Australia to take out a licence, and has been issued the callsign VK2LAD. Congratulations Ved.

(Info from VK3WI)



B.A.R.G.



ACTIVITIES

GENERAL MEETINGS

July - Friday 28th. - AGM.

August - Friday 25th.

September - Friday 29th.

October - Friday 27th.

November - Friday 24th.

1996

January - Friday 19th.

February - Friday 23rd.

March - Friday 29th.

April - Friday 26th.

May - Friday 31st.

June - Friday 29th.

NATTER NIGHTS

July - Friday 14th - Tea.

August - Friday 11th.

September - Friday 8th.

October - Friday 13th.

November - Friday 10th.

December - Friday 8th.

1996

January ———

February - Friday 9th.

March - Friday 8th.

April - Friday 12th.

May - Friday 10th.

June - Friday 14th.

COMMITTEE MEETING

July - Wednesday 19th.

August - Wednesday 16th.

September - Wed. 20th.

October - Wed. 18th.

November - Wed 15th.

December ———

1996

January ———

February - Wed. 14th.

March - Wed. 20th.

April - Wed. 17th.

May - Wed. 22nd.

June - Wed 19th.

HAMVENTION

'95 Sat./Sun. - 28/29 Oct

'96 Sat./Sun. - 26/27 Oct.

1 July

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1 January

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6 March

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June

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73 de Bill VK3PH



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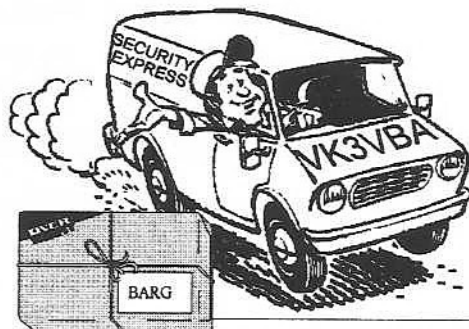
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OR CONTACT
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IAN LEISHMAN

018 503682

or

**DOUG RAPER VK3VBA
015-368922**

14 95/9
COMING EVENTS AND INFORMATION

Friday 8th. September - Natter Night
Wednesday 20th. September - Committee Meeting.
Wednesday 27th. September - WICEN Training Night
Friday 29th. September - BARG General Meeting.



Monday Nights - Practical Nights.
2M Scramble - Sunday Nights 7.50pm 146.425 to 146.600 Mhz.
Club Net - Thursday Nights 8pm. 3.610 +/- QRM
WICEN Training Nights - 4th. Wednesday each month.

21st./22nd. October - JOTA weekend.
28th./29th. October - BARG Hamvention - Ballarat Showgrounds.

BALLARAT AMATEUR RADIO GROUP INC.

HAMVENTION '95

BALLARAT SHOWGROUNDS
WOOL PAVILION

Competitive Events 28th. & 29th. October
Equipment Displays & Sales 29th. October

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OFFICIAL NEWSLETTER OF THE BALLARAT AMATEUR RADIO GROUP INC.

B.A.R.G. NEWS



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